

What is claimed is:

[Claim 1] 1. A munitions propellant comprising:
an alcohol-wet nitrocellulose component comprising about 65.0% to about 95.0% of the gun propellant by weight, said nitrocellulose component having a Nitrogen proportion of substantially 12.6% Nitrogen;
an energetic plasticizer component comprising about 5% to about 35% of the gun propellant by weight, said energetic plasticizer component comprising N-Butyl-2-Nitratoethyl Nitramine (BuNena);
a burning rate moderator and stabilizer component comprising from about one-half of one percent (0.5%) to about five percent (5.0%) of the gun propellant by weight, wherein the burning rate moderator and stabilizer component is one selected from the group consisting of: Sym-Diethyl Diphenyl Urea, N,N'-Diethyl Carbanilide (Ethyl Centralite, Centralite I); and N-Methyl-N',N'-Diphenyl Urea (Akardite II); and
a stabilizer component comprising about one-half of one percent (0.5%) to about five percent (5.0) of the gun propellant by weight, and comprising Acetyl triethyl citrate (ATEC).

[Claim 2] 2. The munitions propellant of claim 1 wherein the nitrocellulose component comprising about 65.0% to about 95% of the gun propellant by weight is a combination of a first nitrocellulose composition having a Nitrogen proportion of about 13.4% Nitrogen and a second nitrocellulose composition having a Nitrogen proportion of about 11.3% Nitrogen, such that the combination has an average Nitrogen proportion of about 12.6% Nitrogen.

[Claim 3] 3. The gun propellant of claim 1, further comprising additional components, wherein the additional components comprising less than about 5% of the munitions propellant by weight include a first additional component, comprising about 1.0% to 2.0% of the munitions propellant by weight, said first additional component comprising graphite; a second additional component, comprising about 1.0% to 2.0% of the guns propellant by weight, said second

additional component comprising Potassium Sulfate; and a third additional component comprising about 1.0% to 2.0% of the munitions propellant by weight, said third additional component comprising Candelilla Wax.

[Claim 4] 4. The gun propellant of claim 2, further comprising additional components, wherein the additional components comprising less than about 5% of the gun propellant by weight include a first additional component, comprising about 1.0% to 2.0% of the munitions propellant by weight, said first additional component comprising graphite; a second additional component, comprising about 1.0% to 2.0% of the gun propellant by weight, said second additional component comprising Potassium Sulfate; and a third additional component comprising about 1.0% to 2.0% of the gun propellant by weight, said third additional component comprising Candelilla Wax.

[Claim 5] 5. The gun propellant of claim 4, wherein the nitrocellulose component is prepared using organic solvents including Acetone, Ethyl Acetate and DiEthyl-Ether.